



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,407	09/05/2006	Neil McNeill Alford	330035	2526
3897	7590	04/07/2008		
SCHNECK & SCHNECK P.O. BOX 2-E SAN JOSE, CA 95109-0005			EXAMINER BAISA, JOSE LITO SASSIS	
			ART UNIT 2832	PAPER NUMBER
			MAIL DATE 04/07/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/572,407

Applicant(s)

ALFORD ET AL.

Examiner

JOSELITO BAISA

Art Unit

2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-36 and 38-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-36 and 38-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 24, 30, 32, 33, 38, 43 and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Wollesen [5877667].

Regarding claims 24, 30, 32, 33, 38, 43 and 44, Wollesen discloses a primary circuit (16, 18) and a secondary circuit (26, 28) that are electrically isolated from one another and each have a plurality of turns, the primary and secondary circuits configured and arranged to form a plurality of electrically conducting layers substantially parallel on a substrate 14; each layer, (16, 26) and (18, 28), being arranged to provide alternating primary and secondary conductors that are disposed adjacent one another on the same plane,

wherein adjacent primary (16, 18) and secondary (26, 28) conductors provide, in the absence of a ferromagnetic pathway, a local magnetic flux linkage 36 between them, and

the plurality of turns and the plurality of layers respectively comprise a number of turns and a number of layers sufficient to provide a transformer action [Col. 4, Lines 41-60, Figure 1B].

With regards to the claim, “a primary circuit for coupling to a transmission line and a secondary circuit for outputting a signal transmitted over said transmission line”, the claim is

inherent characteristic of a transformer. It is inherent for the claimed structures to carry out the method steps as coupling to a transmission line and outputting a signal transmitted over said transmission line as disclosed by Wollesen.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 25-29, 31, 34-36 and 39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wollesen in view of Gardner [6870456].

Wollesen discloses the instant claimed invention discussed above except for the layers extend radially outwardly from a center of transformer.

Gardner discloses electrically conductive layers extend radially outwardly from a center of transformer [see Figure 14].

It would have been obvious to one having ordinary skill in the art at the time of the invention to use layers extending radially outwardly from a center of transformer as taught by Gardner to the electrically conducting layer of Wollesen, since Wollesen discloses applying his primary and secondary layer structure on a spiral transformer [Col. 4, Lines 55-67].

The motivation would have been for a superior "Q" value of the spiral transformer [Col. 4, Lines 55-67].

Regarding claim 26, Gardner discloses layer forms an annulus around an axis of transformer [see Figure 14].

Regarding claim 27, Gardner discloses primary and secondary conductors may have any suitable separation in between [Col. 2, Lines 54-58, Figure 14].

Regarding claims 28 and 39, Gardner discloses the separation between each layers maybe any suitable thickness [Col. 8, Lines 59-62].

Regarding claim 29, Gardner discloses at least ten layers [Col. 17, Lines 46-54].

Regarding claim 31, Gardner discloses a DSL modem comprising the electrical circuit of the transformer [Col. 1, Lines 24-26].

Regarding claim 34, Gardner discloses the spiral is substantially circular, elliptical, square, rectangular, oval or non-regular [Col. 2 , Lines 51-52].

Regarding claim 35, Gardner discloses the spiral conforms substantially to a spiral formed by the polar equation $r(\theta) = a\theta$, where θ is the angle in polar coordinates, r is the radius and a is a constant that regulates the number of turns and the spacing [Col. 2, Lines 48-63, Figure 14].

Regarding claim 36, Gardner discloses a number of turns of each circuit is at least 10 [Col. 2, Lines 58-62].

Regarding claim 40, Gardner discloses the primary circuits are connected in parallel or in series with one another, and the secondary circuits are connected in parallel or series with one another [Col. 17, Lines 45-54].

Regarding claim 41, Gardner discloses at least 10 layers [Col. 17, Lines 46-54].

Regarding claim 42, Gardner discloses having an aspect ratio defined as diameter to width of 1:5 or more [Col. 2, Lines 54-58].

Response to Argument

Applicant's arguments with respect to claims 24-36 and 38-44 have been considered but are moot in view of the new ground(s) of rejection.

Wollesen discloses a primary circuit and a secondary circuit that are electrically isolated from one another and each have a plurality of turns, the primary and secondary circuits configured and arranged to form a plurality of electrically conducting layers substantially parallel; each layer being arranged to provide alternating primary and secondary conductors that are disposed adjacent one another on the same plane; wherein adjacent primary and secondary conductors provide, in the absence of a ferromagnetic pathway, a local magnetic flux linkage between them.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joselito Baisa whose telephone number is (571) 272-7132. The examiner can normally be reached on M-F 5:30 am to 2:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2832

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Elvin G Enad/
Supervisory Patent Examiner, Art Unit 2832

Joselito Baisa
Examiner
Art Unit 2832

/J. B./
Examiner, Art Unit 2832